

Amendments to the Specification

Please replace paragraph [0012] with the following rewritten paragraph:

[0012] Alternatively, in order to reduce the space required for the nonbuttable array that requires two printbars 16 and 17 for each color and uses two substrates 18 and 22 as in Fig. 32, the die modules of one color printbar may be mounted on one side of a substrate and one or more die modules of the associated same color printbar maybe be mounted on an opposite side of the substrate. The die modules of the same color output may thus be staggered on opposite sides of a single substrate as shown in Fig. 4. Here, die modules 26 are right side up on one surface 28 of a substrate 30 and die modules 32 are upside down on an opposite surface 34 of the substrate 30. Thus, fewer substrates, namely half (or four substrates for a four color printer) are required. Such an alternative is disclosed in U.S. Patent No. 5,257,043 to Kneezel, which is hereby incorporated by reference in its entirety.

Please replace paragraph [0038] with the following rewritten paragraph:

[0038] Referring to Figs. 4-6, one set of associated printbars, for example, for outputting or applying the color magenta, is illustrated (i.e., a set of two printbars for magenta 60). The die modules 26 and 32 of the printbars for magenta 60 illustrated in Fig. 43A are located on both sides of the substrate 30. Right side up die modules 26 of a first printbar 27 for magenta 60 are mounted on a top surface 28 of the substrate 30 and upside down die modules 32 for a second associated printbar 29 for magenta 60 are mounted on a bottom surface 34 of the substrate 30. The right side up die modules 26 on the top side 28 of the substrate 30 are substantially evenly spaced across the substrate 30 creating gaps 31 between each of the right side up die modules 26. The upside down die modules 32 on the bottom surface 34 of the substrate 30 are substantially evenly spaced apart from each other and are offset from the right side up die modules 26 on the top surface 28 of the substrate 30 in order to be in vertical alignment with the respective gaps 31 with the printing segments of that color on the top surface 28 of the substrate 30.

Please replace paragraph [0047] with the following rewritten paragraph:

[0047] Other embodiments of this concept showing different orientations of the colors black, yellow, magenta and cyan are shown in Figures 9 and 10. In particular, as shown by

comparing Figs. 8 and 9, the die modules having different colors do not have to be oriented in the same exact order (i.e., Fig. 8 illustrates the colors yellow, magenta, cyan and black, in that order, whereas Fig. 9 illustrates yellow, black, magenta and cyan, in that order). Still further, by comparing Figs. ~~8~~5 and 9 with Fig. 10, it can be seen that substrates with corresponding colors may or may not be adjacent. Specifically, printbars having die modules with identical colors do not need to be located in adjacent substrates, as shown in Figs. 8 and 9. Rather, as shown in Fig. 10, the two associated printbars may be located on any substrate, in any order, so long as the set of two associated same color printbars for all colors are on the same surface (i.e., top surface or bottom surface, but not both) of different substrates and the die modules of the two associated printbars are properly staggered.